

**IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF DELAWARE**

LG.PHILIPS LCD CO., LTD.,

Plaintiff/Counterclaim Defendant,

v.

Civil Action No. 05-292 (JJF)

TATUNG COMPANY;
TATUNG COMPANY OF AMERICA, INC.;
CHUNGHWA PICTURE TUBES, LTD.;
AND VIEWSONIC CORPORATION,

Defendants/Counterclaim Plaintiffs.

DECLARATION OF JONG HWAN KIM

I, Jong Hwan Kim, declare under penalty of perjury as follows:

1. I am the Manager of Intellectual Property Team 1 of LG.Philips LCD Co., Ltd. ("LPL"). I have personal knowledge of the facts stated in this declaration, and if called as a witness, could competently testify to them. I make this declaration in support of LPL's motion for a preliminary injunction.

2. LPL is a corporation organized and existing under the laws of the Republic of Korea that specializes in manufacturing flat panel displays called thin-film-transistor liquid crystal displays ("TFT-LCDs"). LPL is recognized worldwide as a leading innovator in LCD technology. LPL's LCD products are used by major companies throughout the world to make computer monitors, televisions, and other products and systems.

LPL's Reputation As A Global Leader In LCD Technology

3. LCDs are a type of flat panel display used to generate images in many popular electronic products with flat screens. In simplified terms, a LCD includes upper and lower glass substrates, a color filter layer on the upper substrate, and liquid crystal between the substrates. The special properties of the liquid crystal are manipulated by using electrical signals to create images. In most LCD products the images are created using a backlight unit that diffuses and directs light toward the viewing area. The LCD panel and backlight unit are assembled as a LCD module, which is attached to a housing to manufacture a monitor, television, or other flat panel LCD product.

4. The use of LCDs in flat panel computer monitors and televisions is relatively new. Traditionally, computer monitors and televisions have used cathode ray tubes ("CRTs") to create viewing images. A CRT is thick and heavy. A LCD, in contrast, is thin and light. As a result, computer monitors and televisions containing CRTs are bulky and heavy compared to LCD monitors and televisions. LCD monitors and televisions are becoming more and more popular because, among other reasons, LCD products are modern, light weight, thin, easy to move, attractive, take up less space, use less power, and generally provide better images than products made with CRTs. Attached as Exhibit 1 are copies of three articles confirming the popularity of LCD panels and products: Ed Frauenheim, "LCDs Poised for Prime Time," CNET News.com (Feb. 26, 2004); Dinesh C. Sharma, "Flat Panels To Outpace CRTs in 2004," CNET News.com (Feb. 19, 2004); DisplaySearch, "DisplaySearch Upgrades 2H'05 Outlook for the Large-area TFT LCD and Related Markets" (Oct. 5, 2005).

5. LPL produces a variety of LCDs for use in diverse product lines. LPL has developed and is developing LCDs for an array of products, including: (1) notebook personal computers; (2) desktop computer monitors; (3) televisions; and (4) special applications (including, for example, automotive navigation and entertainment systems). LPL's LCDs are used in many types and sizes of computer monitors and televisions offered by Gateway, IBM, Compaq, Apple, Sony, NEC, Dell, and other companies.

6. LPL has earned a well-established reputation as a global leader in LCD markets and technology. According to DisplaySearch, LPL is one of the world's foremost large-area (10" or larger) LCD manufacturer. DisplaySearch is a leading display-related market research firm that is well-known in the industry for providing accurate and reliable market data and reports. Companies in the LCD industry and financial and market analysts subscribe to and rely upon DisplaySearch's reports. DisplaySearch defines "large area" LCDs to include LCDs 10" and larger.

7. To maintain its leadership position in the LCD arena, LPL maintains a diverse product portfolio, and continuously invests resources to discover and develop new technologies. LPL's vigorous research and development ("R&D") and product innovation efforts consistently yield new and improved technology, reinforcing LPL's reputation as an innovator. LPL was the first company to develop and mass produce several LCDs (including, for example, the 14.1" XGA, 18.1" SXGA, 20.1" UXGA, 22" WSXGA, 23" WUXGA, 30" WXGA).

8. In addition, LPL was the first company to produce fifth-generation LCD glass. Fifth generation production refers to the size of the glass sheets from which

LCDs are made. Fifth generation glass sheets measure approximately 1.0 or 1.1 meters by 1.2 or 1.3 meters, an increase over the size of fourth generation LCD glass.

9. LPL was the first company to demonstrate a jumbo 52" LCD for high definition televisions, featuring more than seven times the number of pixels in a standard television. Recently, moreover, LPL unveiled a 55" LCD prototype for televisions, one of the largest in the world. LPL offers a wide range of LCDs for television applications.

10. LPL won the prestigious SID/Information Display Magazine 2003 Display of the Year Gold Award recognizing innovation and excellence for LPL's 20.1" UXGA LCD panel featuring copper-based interconnect technology.

11. Building on its strong reputation and track record for innovation, LPL is setting the standard for volume and quality in manufacturing and sales. LPL surpassed 10 million sales of LCDs for desktop monitors within an 11 month period, setting a new milestone for sales within a single production category. LPL also set an industry record as the first company to produce and ship two-million large-area LCDs in one month.

12. LPL is recognized as a superior supplier by its customers according to industry surveys conducted by DisplaySearch. For three consecutive years, 2002, 2003, and 2004, LPL has received the overall customer satisfaction award for a TFT-LCD supplier. In 2003, moreover, LPL earned the highest score for technology and in several other areas.

LPL's Vital R&D and Patent Programs

13. The LCD industry is highly competitive and technology-focused. Technological innovation occurs very rapidly in the LCD industry. LPL's intellectual

property and R&D programs, therefore, are a core component of LPL's business model.

LPL's success depends on its reputation as an innovator and its R&D programs.

14. LPL regularly obtains patents on its innovations to secure competitive advantages in the LCD industry. LPL also invests aggressively in R&D programs and concentrates its research in state-of-the-art R&D facilities. The LG Anyang R&D Center, which many consider to be the birthplace of Korea's LCD industry, conducts extensive research for LPL on cutting-edge LCD technologies.

15. LPL employs more than 645 scientists and others to assist with R&D work. LPL invests more than \$200 million dollars annually in its R&D programs and to develop patented technology. LPL also is investing heavily in new product lines and production facilities. As recently reported in the attached article from *The Korea Times*, "competition has become even more intense" in the flat-panel display market and LPL "will endeavor to maintain its leadership with aggressive investment in liquid crystal displays" and other products. Attached as Exhibit 2 is a copy of this article, Bae Keun-mih, "LG Targets Global Top 3 Electronics," *The Korea Times* (May 12, 2004).

16. As part of LPL's aggressive commitment to maintain its position as an innovation leader, LPL is investing 3.3 trillion Korean won (just under \$2 billion U.S.) to build a new, sixth generation LCD plant in Kumi, Korea. So-called sixth generation facilities can produce glass sheets up to an approximate size of 1.5 meters by 1.8 meters, which are used to make LCDs. LPL has signed a memorandum of agreement to proceed toward building the world's largest LCD factory, which will be located in Paju, Kyonggi Province, Korea. The Paju plant is intended to become the center of the global

LCD market and will be complemented with R&D facilities as part of a 3.3 million-square-meter industrial cluster.

17. LPL's R&D programs produce a constant flow of innovations that drive LPL's success. LPL routinely obtains patents on its technologies throughout the world. Historically, LPL files approximately 400 patent applications each year with the United States Patent and Trademark Office ("PTO"). Currently, LPL holds approximately 785 patents.

18. To protect its vital intellectual property, LPL relies on a full-time staff of professionals. LPL's intellectual property department includes more than 20 professionals who work on obtaining and enforcing patents for LPL. LPL strictly controls and protects its patents to prevent unlicensed use of LPL's patented technology. When appropriate, as in this case, LPL institutes legal action to protect its patent rights.

LPL's Reputation for Technology and LPL's Patents

19. In addition to consistently bringing new products to market, LPL regularly pioneers significant technical innovations. For example, LPL has developed super high aperture (SHA) ratio LCS structures, wet etching technology, and efficiency enhancing touchscreen sensor technology. Recently, LPL jointly developed a new backlight unit to improve significantly the brightness of notebook monitors. LPL also has invented patented techniques for the physical mounting of flat panel displays.

20. LPL is an established innovator in flat panel display mounting technology and has revolutionized mounting technology in the industry. LPL holds several patents for side-mounting display devices. LPL also has developed and obtained patents for the innovative rear mounting technology. LPL also has developed and obtained patents for tape carrier packages that form part of an LCD.

21. LPL holds two U.S. patents that relate to tape carrier package technology. On May 18, 2004, the United States PTO issued United States Patent No. 6,738,121 (“the ‘121 patent”), entitled “Tape Carrier Package with Dummy Bending Part and Liquid Crystal Display Employing the Same.” A true and correct copy of the ‘121 Patent is attached as Exhibit A to LPL's complaint.

22. LCDs are used to produce images for many of today's computer monitors, televisions, and other popular flat screen products. Generally, an LCD with an active matrix driving system uses thin film transistors (“TFTs”) as switching devices to display a moving picture. LCDs display a picture corresponding to video signals on a pixel matrix having pixels arranged at each intersection between gate and data lines. Each pixel includes a liquid crystal cell for controlling a transmitted light quantity in accordance with a voltage level of a data signal from a data line. The TFT is installed at an intersection between the gate line and the data line to switch a data signal to be transferred to the liquid crystal cell in response to a scanning signal from the gate line.

23. An LCD requires a number of driving integrated circuits (“D-IC”) connected to the data lines and the gate lines to apply data signals and scanning signals to the data lines and the gate lines, respectively. The D-ICs are installed between the printed circuit board (“PCB”) and the liquid crystal panel to apply the data signals and the scanning signals to the data lines and the gate lines of the liquid crystal panel in response to a control signal applied by the PCB. The D-ICs are mounted on a tape carrier package that is connected to both a lower glass substrate of the liquid crystal panel and the PCB.

24. Conventional tape carrier packages cause a problem with brightness variations in the areas where the tape carrier packages are adhered to the liquid crystal panel. Using the tape carrier package of the '121 patent, the brightness variations are reduced or eliminated.

25. This is a significant case because LPL's technology is of growing significance in the computer industry, as flat panel display monitors, including those that use liquid crystal displays ("LCDs") to produce visual images, increasingly displace the larger and heavier computer monitors that utilize older cathode ray tube ("CRT") technology. LPL's technology of the '121 patent reduces the brightness difference on the screen of the monitor and therefore increase the picture quality. Consequently, LPL's technology of the '121 is an important innovation.

26. LPL has not granted any license on the '121 Patent. LPL owns the '121 Patent.

Sales of Defendants' Infringing Products in Delaware

27. Upon information and belief, and as alleged in LPL's complaint, Defendant Tatung Co. ("Tatung") is a Taiwanese corporation with a place of business in Taiwan and Defendant Tatung Company of America ("Tatung America") is a California corporation with a place of business in California. I am informed that the product depicted in the attached Exhibit 3, which is identified as a Tatung L17AMTN monitor, was offered for sale and sold by Best Buy to a customer in Delaware.

28. Upon information and belief, and as alleged in LPL's complaint, Defendant ViewSonic Corporation ("ViewSonic") is a Delaware corporation with a place of business in California. I am informed that the product depicted in the attached

Exhibit 4, which is identified as a ViewSonic VE710S monitor, was offered for sale and sold by CompUSA to a customer in Delaware.

29. Upon information and belief Chunghwa Picture Tubes, Ltd. ("CPT") is a subsidiary and/or affiliate of Tatung. CPT is a Taiwanese corporation having a place of business in Taiwan. CPT manufactures the LCD modules incorporated into the Tatung L17AMTN and ViewSonic VE710S monitors.

30. LPL has conducted a thorough analysis and investigation regarding Defendants' monitors. As part of its investigation, LPL retained an outside expert, William K. Bohannon, to review and analyze the products believed to infringe LPL's patent. Mr. Bohannon performed his infringement analysis which confirms that Defendants' monitors infringe LPL's patents.

31. Defendants' infringement of the '121 Patent, including sales of infringing products in Delaware, is causing substantial and ongoing harm to LPL. Defendants' infringement, for example, violates LPL's rights to exclude others from making, using, offering to sell, selling, or importing products that use LPL's patented technology. In addition, Defendants' infringement is harming LPL's industry reputation and goodwill as an innovator. Further, Defendants' ongoing infringement is likely to encourage widespread additional infringement in the immediate future.

Infringement Harms LPL's Crucial Reputation and Goodwill

32. LPL's patents are critical to the company's success and, therefore, it is essential for LPL to protect its patents. Protecting its patents is necessary, for example, for LPL to maintain its crucial reputation as a leading innovator. LPL's reputation and ability to protect its patents also is important to maintain LPL's image and promote customer and licensing relationships.

33. Unless Defendants' infringement is stopped, LPL's '121 Patent is likely to be inaccurately perceived as vulnerable and unprotected. Defendants' infringement also fosters a false impression that the '121 Patent is not valid.

34. LPL's customers and others in the industry could incorrectly infer from Defendants' infringement that LPL's patents do not represent new technology or innovation. Others also could incorrectly conclude that LPL is unwilling or unable to prevent infringement of its patents. Therefore, Defendants' infringement harms LPL's reputation and goodwill.

35. LPL's reputation for innovation and customer satisfaction is very important to LPL's business. LPL's customers and licensees need to be confident that LPL is not selling LCDs or licensing related technology that are subject to widespread infringement. Defendants' infringement of LPL's '121 Patent further undermines LPL's reputation and goodwill by calling into question the validity and enforceability of LPL's patents in general. This infringement, therefore, harms LPL's industry stature and business relationships.

36. Further, LPL is entitled to enjoy the reputation and goodwill that it deserves as the owner of the '121 patent. LPL cannot enjoy the recognition it deserves for its technology unless and until Defendants are enjoined from continuing to infringe.

The Likelihood of Widespread Further Infringement

37. Without an injunction, moreover, LPL faces a substantial threat of further infringement of its '121 Patent. Because of the ease with which prospective infringers can copy this technology, additional infringement of the '121 Patent is likely to become widespread.

38. The threat of massive infringement also is compounded by the nature of LPL's patented technology related to LCD and tape carrier packages. Infringers could copy LPL's invention by adjusting existing production and manufacturing methods, without investing heavily in new equipment or technology.

39. The relative ease with which others could infringe and the likelihood of further copying of LPL's technology warrants entry of an injunction. Moreover, an injunction would not result in any substantial hardship for the Defendants. Defendants could, for example, make and sell non-infringing products that use traditional, prior art LCD technology. Further, Defendants should be able to sell other, non-infringing products.

Defendants' Diverse Product Lines

40. An independent website describes Tatung in part as a manufacturer of "computer products (PCs, servers, monitors, workstations), appliances (air conditioners, refrigerators, rice cookers), industrial goods (cable and wire, transformers, motors), and medical devices (blood pressure monitors, electrical massage devices, thermometers)." *See* Tatung Co. Company Profile (Yahoo! Finance), copy attached as Exhibit 5. Similarly, Tatung's own website and Tatung American's website show multiple lines of products. These Tatung products include monitors, computers, wireless products, televisions, DVD players, projectors, air conditioners, household appliances and various industrial products. Attached as Exhibit 6 are copies of pages printed from Tatung's website. Attached as Exhibit 7 are copies of pages printed from Tatung America's website.

41. LPL's complaint alleges infringement of a Tatung 17" computer monitor model (L17AMTN). Regarding flat panel display monitors alone, the Tatung websites

list several LCD computer monitor models (including the one infringing model referenced in LPL's Complaint). (*See* Ex. 6; Ex. 7.)

42. An independent website describes ViewSonic in part as a maker of CRT and LCD computer displays, as well as offering "plasma TVs, high-definition televisions (HDTV), LCD projectors, handheld computers, and tablet PCs." *See* ViewSonic Corporation Company Profile (Yahoo! Finance), copy attached as Exhibit 8. Likewise, ViewSonic's own website highlights a product line that includes, but is not limited to, LCD displays, LCD televisions, CRT monitors, projectors, plasma televisions, pocket PCs, digital media centers, HDTV displays, and accessories. Attached as Exhibit 9 are copies of pages printed from ViewSonic's website.

43. Even with respect to ViewSonic's LCD computer monitors alone, the infringing 17" model (VE710s) is only one of dozens of ViewSonic LCD monitor models. ViewSonic's website lists more than thirty (30) LCD computer monitor models. (*See* Ex. 9.)

44. In addition to manufacturing the LCD module incorporated into the ViewSonic and Tatung monitors that are the subject of this suit, CPT "makes optoelectronic display components used in TFT-LCD (thin-film transistor liquid-crystal display), projection, PDP (plasma display panel), and CRT (cathode ray tube) applications. The company, which was established in 1971, also makes color picture tubes and electron guns. Chunghwa is active in Taiwan, China, and Malaysia." *See* Chunghwa Picture Tubes, Ltd. Company Profile (Yahoo! Finance), copy attached as Exhibit 10. CPT's website also lists a wide variety of TFT-LCD products. Attached as Exhibit 11 are copies of pages printed from CPT's website.

I declare under penalty of perjury under the laws of the United States of America that the foregoing is true and correct.

Executed on this 24th day of October, 2005.

Song Hwan Kim
Jong Hwan Kim